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"SOCIAL INTERACTION IN EMOTIONALLY DISTURBED RETARDED CHILDREN"

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ABSTRACT

A specialized therapeutic intervention called peer-pair psychotherapy was administered to five pairs (N = 10) of severely disturbed and retarded children, in a residential psychiatric setting. While this form of psychotherapy has been practiced with less emotionally disturbed children, a modified technique was applied to this sample. The feasibility of this intervention was determined by the social interaction before, during, and after two blocks of ten treatment sessions by a time sampling observational method. While untreated pairs showed minimal gains in their social interaction, the increments in the treated pairs were notably greater. Future considerations for extending this form of intervention are discussed.

Introduction

There is a scarcity of empirical work done assessing aspects of peer relationships of severely disturbed, autistic, or retarded children. The fact that peer relationships are not developing both in emotionally disturbed, retarded, or normal children, however, has been more widely recognized. Heider (1958) suggested that any interpersonal relationship has the potential to become meaningful and agreeable when its total relevance and interactional effect is positive. Clinical investigations have indicated that the developmental periods of a child's peer relationships (Bandura, 1962; Piaget, 1962), the nature and quality of peer relationships (Parten, 1932; Rosen, 1974), and situational factors involved in peer relationships (Baer et al., 1967) are related to behavioral development.

Correlational studies have reported that peer relationships influence social-role learning (Piaget, 1932), the socialization of aggression (Patterson and Cobb, 1971), the internalization of moral values (Berkowitz, 1964), the recognition of childhood norms (Parten, 1932), the shaping of sex-appropriate behavior (Kobasigawa, 1968), and the development of cognitive and communicative skills (Barnes, 1971). In addition, the modifying context in which peer interactions occur, relate to specific types of interactional effects such as cooperation (Smilansky, 1968), leadership (Lewin, Lippitt, and White, 1938) and group goals (Sherif, 1962)

Very little systematic attention has been directed towards understanding the interactional effect of peer associations as they occur within a dyad, or a pair of children in a therapeutic relationship. Exceptions include Birnbaum's (1975) work with withdrawn children, Fuller's (1975) description of therapy with differentially diagnosed children, and Romanczyk's et al., (1975) investigations of pairs of severely disturbed children.

The present study was designed to assess the effectiveness of a specific treatment intervention called peer-pair psychotherapy (Birnbaum, 1975), on the social interaction of children who have a double diagnosis: mental retardation and emotional disturbance. The underlying assumptions were that peer-pair psychotherapy can be successfully administered to this sample, and that the social interaction of pairs of children who received peer-pair psychotherapy will be greater than those who do not receive it. The data were obtained by using a modified version of a standardized observational scheme (Stephenson & Stephenson, 1961), thus attempting to adequately control for the effects pointed out in recent methodological critiques concerning the reliable collection of observational data (Johnson & Bolstad, 1973; O'Leary & Kent, 1973).

Method

Subjects

Five pairs (N = 10) of children were selected from the John Merck Program, a specialized residential treatment program, in Western Psychiatric Institute and Clinic, in Pittsburgh, Pennsylvania. Children

were initially pre-selected on the basis of whether they would be available for 12 weeks of therapy. Children were randomly assigned to a therapeutic pair consisting of a "high" and "low" interactor. This was determined by a global rating given by a child psychiatrist and therapeutic educator. The rationale for this selection procedure was to avoid pairing children whose interactional potential was minimal.

Chronological ages ranged from 4 yrs. 6 mos. to 9 yrs. 3 mos. (the mean age was 7 yrs. 3 mos.), and the IQ's ranged from less than 25 to 70. Nine children were male, and one was female. The behavioral features of the children included minimal verbal expression or interactional skills with adults or peers, and unusually high rates of self-stimulatory behavior. In terms of social and interpersonal skills the S's constituted a heterogenous group.

Procedure

Observations were made during half-hour free play sessions held in the same room. The following physical arrangements and toys were present: a 9' x 12' playroom equipped with a walled one-way mirror, a set of "Lincoln Logs", 2 "Nerf" balls, a set of wooden blocks, a hand puppet, 4 sponge blocks, a play telephone, play dough, two hard hats, and a plastic bowling set.

A time sampling observational scheme was used to assess the social interaction between pairs of children (Stephenson & Stephenson, 1961). All observations occurred in free play sessions.

After an individual pair was taken to the playroom, two observers positioned themselves behind the walled one-way mirror. Each unit of observation was considered a 'behavioral unit' and was recorded as either attentive or interactive behavior. Observations were made at 5 second intervals, on a 5 second observe, and 5 second record basis. The first five minutes of each free play session were left unrecorded to allow the children to familiarize themselves with the setting. The two criterion behaviors of social interaction - attentive or interactive behavior - were then dichotomously scored as to their occurrence or non-occurrence during the following time segments of the half hour: 5-8 minutes, 11-14 minutes and 17-20 minutes.

Six pairs of observers were used interchangeably throughout the study, and had an assessed overall inter-rater reliability of $\underline{r} = +.86$.

Two blocks of peer-pair psychotherapy treatments were given. Block 1 lasted 7 weeks and included 2 pairs of children who were seen twice weekly in half-hour sessions of peer-pair psychotherapy (treated pairs), and had once a week free play sessions. Two pairs served as a control group and did not receive peer-pair psychotherapy (untreated pairs), but had once a week free play sessions. Weeks I and VII were baseline observations, before and after the block of 10 peer-pair psychotherapy treatment sessions.

Block 2 immediately followed and consisted of five weeks of twice weekly peer-pair psychotherapy sessions given to two pairs, with another pair as a control. The two treated pairs in Block 2 were the

untreated pairs in Block 1. The two pairs of treated children in Block 1 which were to serve as control pairs for Block 2 left the program due to unforeseen illness and vacation. A new pair of untreated children was selected, therefore, to serve as a control.

Results

Pairs of children who received peer-pair psychotherapy were considered treated pairs and those who did not were untreated pairs. The social interaction of all pairs was determined by the attentive and interactive scores during free play sessions in both Blocks 1 and 2, as shown in Tables I and II.

Insert Tables I and II

The scores, as indicated in Tables I and II, are divided in terms of attentive or interactive behavior, and treated and untreated pairs of children. The differences between attentive and interactive behavior scores are similar in Tables I and II. The overall attentive scores in Blocks 1 and 2, as indicated by the respective grand mean scores of 3.70, and 2.35, were substantially greater than the overall interactive grand means in Blocks 1 and 2 respectively, .31 and .66. The mean scores and range of variability (S.D.'s) within pair-wise comparisons for all pairs were larger for attentive than interactive behavior in both Tables I and II.

Treated pairs scored higher than untreated pairs in both attentive and interactive behaviors as shown in Tables I and II. The combined mean scores for treated pairs I and II (Block 1) were 3.98 for attentive behavior and .33 for interactive behavior. Untreated Pairs III and IV scored 3.41 and .29 respectively. Similarly, the combined mean scores for treated pairs III and IV in Block 2, were 3.00 for attentive and 1.14 for interactive behavior. Untreated Pair V scored 1.70 and .17 respectively.

The overall summed scores of attentive and interactive behaviors for all pairs of children further illustrated these differences.

Insert Table III

The relationship between the summed attentive and interactive scores was a ratio of 790 to 124 or 6:1. Between treated and untreated pairs of children the attentive score ratio was 514 to 276 or 1.8:1 for treated pairs and the interactive score ratio was 95 to 29 or 3.3:1 for treated pairs. As well, the respective summed total attentive and interactive scores were 609 to 305 or 2:1 for treated pairs.

Discussion

The effectiveness of peer-pair psychotherapy. Despite methodological limitations of the study design, two major findings are apparent. Firstly, attentive scores were higher than inter-

active scores for all pairs of children. Secondly, treated pairs had higher attentive and interactive scores than untreated pairs. When Pairs III and IV changed from untreated to treated status, their social interaction increased substantially. Although no statistical comparisons were made between high and low interacters, as this was not the purpose of the study, our clinical impressions concur with suggestions made by Birnbaum (1975) to appropriately pair such children. As might be expected we found that the higher interacter consistently initiated some degree of interaction. This study also indicated that the observational method described by Stephenson & Stephenson (1961) had established reliability and validity, and was easily applied to this setting.

Some of the inherent limitations of this study relate to the small sample size, the specificity of the patient sample and the relative short time frame of both treatment and observations. Future considerations should include a greater frequency of treatment sessions and observations and some follow-up of the pairs of children. The empirical findings in themselves, however, are only a part of what was learned.

Techniques involved in peer-pair psychotherapy with disturbed, retarded children. The overall low social functioning and defective ego development of these children necessitated the use of some specialized techniques of peer-pair psychotherapy. The therapist was more active than he would have been in treating pairs of

neurotic or maladjusted latency children. Peer-pair psychotherapy was administered using a modified schema adapted by Fuller (1975) from the original by Garland, et al., (1963). This consisted of five stages: 1) pre-affiliation, 2) power and control, 3) intimacy, 4) acceptance of individual uniqueness, and 5) a termination stage.

A case example using a pair (Pair III) involved in this study can better illustrate the process. (R) is a 6-1/2 year old black boy, (S) is a 7-1/2 year old black boy. (R) had been in the program for about ten months, (R) for 8 weeks.

The following was an excerpt from Treatment Session No. 1:

"Both (R) and (S) were quite unwilling to come with the therapist to the playroom. Once there, (S) looked at a small picture book without turning the pages, while (R) sat on the floor jabbering away, and manipulating various toys, while looking at the therapist. (R) was prompted verbally to pay attention to (S), at which point he merely repeated the therapist's directions several times. (S) completely ignored the therapist. The therapist set up some bowling pins, took some play dough and knocked down some of the pins with the play dough. (R) imitated therapist's activity, while (S) competed with (R) for the play dough. There were two hard hats in the playroom; the therapist asked (R) to wear one and to

put the other one on (S). (R) did this but (S) was completely disinterested in this activity..."

As can be seen from the foregoing, some relationship between child (R) and the therapist can be observed at the very start, whereas (S) initially seems completely alienated.

By contrast, excerpts from Session No. 9 show a later developmental stage of the therapeutic process:

"...Neither child was very keen to come to the playroom, but once in there, they looked at each other and began to show interest in the same toy. After a brief struggle for possession, (S) broke off and picked up the play telephone. The therapist asked the children to look at each other. (R) was more responsive to this direction. He took up a role of interrogating (S) about the play telephone. After a strong verbal pressure from both therapist and (R) (who imitated the therapist), (S) responded appropriately. (S)'s mood was euphoric and rather silly throughout most of the session. At one time he breifly lunged at (R) in order to pull his hair. (R) had some difficulty in restraining (S) and asked the therapist to put (S) in the corner. The therapist instead patterned (R) into looking at (S) while instructing him, and also to restrain (S) by putting his arms around (S)'s waist and by coming at him from behind. (R) had difficulty in carrying this out, but

managed to do so. (S) thought that this was fun and tolerated the procedure well."

This case illustrates several features shared by many other pairs who were treated. Firstly, spontaneous interaction within pairs was virtually absent at the beginning of treatment. In addition, one child seemed to relate more to the therapist than the other child did. Finally, the child who related more received more patterning and shaping in the direction of his peer. The therapist's goal, therefore, was peer interaction rather than therapist-child interaction. The latter was used as a means to achieving the former, and as treatment sessions progressed, the therapist was able to reduce his level of activity.

This example also illustrates an asymmetry between therapist-child (R) relationship and therapist-child (S) relationship. (R) was labeled as a high interactor, and (S) was a low interactor. Competition for the therapist did occur at some points, throughout treatment, however, this was not apparent in the previous examples. It was found that the five stages described by Garland et. al., (1963) were not sequential but tended to overlap.

Implications for future research. In light of our tentative findings, that peer-pair psychotherapy improves the child's capacity for child-child interaction, we have decided to extend its practice and the methods for assessing its results. Included in the latter will be the entension of observing the child's behavior in other settings. Such observations will be made more frequently. Additionally, future considerations will include

drawing a distinction between spontaneous and induced peer interaction, which will help to assess the nature and quality of peer associations as they exist outside of formal therapy.

Finally, the feasibility of employing this form of treatment with another therapeutic modality, e.g., individual psychotherapy becomes relevant. Rather than comparing their appropriateness, the emphasis of this process is determining how they can be linked together in an overall treatment approach.

TABLE I.

SOCIAL INTERACTION AS MEASURED BY ATTENTIVE AND INTERACTIVE BEHAVIOR FOR TREATED AND UNTREATED CHILDREN

Block 1: (Weeks 1-7), Based on 21 Observations

	ATTENTIVE BEHAVIOR			INTERACTIVE BEHAVIOR		
TREATED PAIRS	Summed Score (X)	Mean Score ($\bar{x}$)	Standard Deviation (S.D)	Summed Score (X)	Mean Score ($\bar{x}$)	Standard Deviation (S.D.)
PAIR I.						
Harry	29	1.38	2.80	2	.1	.29
David	94	4.48	4.04	1	.05	.22
PAIR II.						
Darryl	52	2.48	2.94	18	.86	2.17
Gary	159	7.57	2.82	6	.29	.72
UNTREATED PAIRS						
PAIR III						
Sean	65	3.10	2.59	1	.05	.22
Richard	26	1.24	1.41	4	.19	.60
PAIR IV						
Patrick	83	3.95	3.75	9	.43	1.33
Dana	51	2.43	2.50	10	.48	1.75

Note. "Treated and Untreated Pairs" indicates whether the pairs did or did not receive peer pair psychotherapy.

TABLE II.

SOCIAL INTERACTION AS MEASURED BY ATTENTIVE AND INTERACTIVE BEHAVIOR FOR TREATED AND UNTREATED CHILDREN

Block 2: (Weeks 8-12), Based on 15 Observations

	ATTENTIVE BEHAVIOR			INTERACTIVE BEHAVIOR		
TREATED PAIRS	Summed Score (X)	Mean Score ($\bar{x}$)	Standard Deviation (S.D)	Summed Score (X)	Mean Score ($\bar{x}$)	Standard Deviation (S.D)
PAIR III.						
Sean	69	4.60	3.94	1	.07	.26
Richard	14	.93	1.53	1	.07	.26
PAIR IV.						
Patrick	51	3.40	3.04	31	2.07	3.06
Dana	46	3.07	3.75	35	2.33	4.69
UNTREATED PAIR						
PAIR V						
Tony	26	1.73	2.12	3	.2	.56
John	25	1.67	2.06	2	.13	.52

TABLE III.

SUMMED SCORES

OF ATTENTIVE AND INTERACTIVE BEHAVIOR

FOR ALL PAIRS OF TREATED AND UNTREATED CHILDREN

IN BLOCKS 1 and 2 (N = 10)

TREATED PAIRS (n = 8)	ATTENTIVE BEHAVIOR	INTERACTIVE BEHAVIOR	TOTALS
Received Peer-Pair Psychotherapy	514	95	609
UNTREATED PAIRS (n = 6)			
Did Not Receive Peer-Pair Psychotherapy	276	29	305
TOTALS	790	124	914

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